Monthly WeatherNo. 252BulletinAPRIL 2007



April was a month of record-breaking sunshine and temperatures- shown here is a scene from Youghal, Co. Cork on the 5th, one of many days during the month when more than 10 hours of sunshine were widely recorded. (picture Irish Examiner)

WARMEST, SUNNIEST ON RECORD; DRY FOR MOST OF MONTH

High pressure centred near or over the country during almost all of April gave an exceptionally sunny, warm and dry month everywhere. Mean monthly air temperatures varied between 10°C and 11.5°C and were around three degrees higher than normal generally; this range of temperatures is more typical of that for an average May. It was the warmest April on record almost everywhere, including the long-term stations of Birr, Malin Head and Dublin (Phoenix Park), where records began more than a century ago *(see table on page 3)*. The mean temperature at Phoenix Park of 11.3°C was over a full degree higher than its previous highest







Spread of gorse fires in dry weather - page 3

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Global weather of 2006



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Notes on the tables and map showing location of stations appear in January issue

WEATHER



Above Another warm and sunny day at the model village in Clonakilty, Co. Cork, on the 13th.

(picture Irish Examiner)

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mean April value of 10.2°C, recorded in both 1987 and 1865. Despite the very high monthly values, however, minimum temperatures fell sharply on several nights under clear skies and there were between 12 and 18 ground frosts recorded at inland stations. around a third more than normal for April. Monthly rainfall totals were well below normal at almost all stations. Following mostly dry weather during the last week of March, some stations recorded no measureable rainfall until the 22nd of this month. It was the driest April on record at both Shannon Airport and Casement Aerodrome, while at many other stations it was the driest for between 10 and 27 years. There were only between 2 and 6 wetdays measured (days with 1mm or more rainfall), with almost all of the month's rainfall recorded between the 21st and 25th. Soil moisture deficits increased significantly during the

month; the very dry conditions led to outbreaks of gorse fires in many parts of the country *(see page 3)*. For the second successive April, sunshine totals were exceptionally high. It was the sunniest April on record almost everywhere, with monthly totals around 50% higher than normal generally.

1st to 20th: Large anticyclones, or areas of high pressure, persisted close to Ireland throughout the period, giving fine and dry weather. Daytime temperatures were between three and five degrees above normal on many days, especially in inland areas, but nightime temperatures were below normal during the first week, leading to widespread ground frost. Very little rainfall was recorded, with only light coastal showers at times, while daytime relative humidity values of less than 50% were frequent. Sunshine amounts were very high, with more than 10 hours of sunshine recorded on many days. Winds were from an east or northeasterly

WEATHER

Record-bre	eaking April va	lues at long-ter	m stations
Station	Temperature (°C)	Sunshine (hours)	Rainfall (mm)
Birr	Mean: 11.0	Total: 212	Total: 22
(records since 1900)	warmest on record	sunniest since 1938	driest since 1988
Dublin (Phoenix Park)	Mean: 11.2		Total: 11
(records since 1855)	warmest on record		driest since 1938
Malin Head	Mean: 10.5	Total: 190	Total: 33
(records since 1885)	warmest on record	sunniest since 1981	driest since 1988
Valentia Observatory	Mean: 10.9	Total: 217	Total: 51
(records since 1892)	warmest since 1893	sunniest since 1938	driest since 1997
All stations	Highest mean: 11.6 Valentia Observatory 1893, Shannon Airport 2007	Highest total: 262 Valentia Observatory 1938	Lowest total: nil several stations 1938

direction during much of the period.

21st to 25th: As high pressure moved away eastwards, frontal systems moved across the country, bringing cloudy and occasionally windy conditions with rain or showers each day. Falls were heaviest near Atlantic coasts between the 23rd and 25th, when some were thundery. Both daytime and nightime temperatures were above normal throughout.

26th to 30th: High pressure became reestablished over Ireland, bringing a return to dry and sunny weather generally, but there were thundery showers over the south of the country on the 29th and 30th. Daytime temperatures rose well above normal in midland and western areas, but it was cooler in eastern counties affected by onshore breezes.

Wind and elements: Mean windspeeds for the month were below normal everywhere, varying between 5 and 9 knots (9 and 17km/hr) generally; these values were the lowest for April for between 10 and 33 years generally. The highest gust, 46 knots (85km/hr), was measured at Belmullet on the 23rd. Thunderstorms were recorded on the 22nd and in the periods 24th to 25th and 28th to 30th. There were no reports of either hail or snow. Fog became widespread under clear and calm conditions on several nights, especially in the periods 5th to 8th and 19th to 25th.



Right

A combination of low rainfall and low relative humidity during the month brought a sharp rise in soil moisture deficits across the country. These very dry conditions led to the spread of gorse fires in many counties. Pictured right is one such fire near Knock Airport, Co. Mayo. (picture Liam Newman)

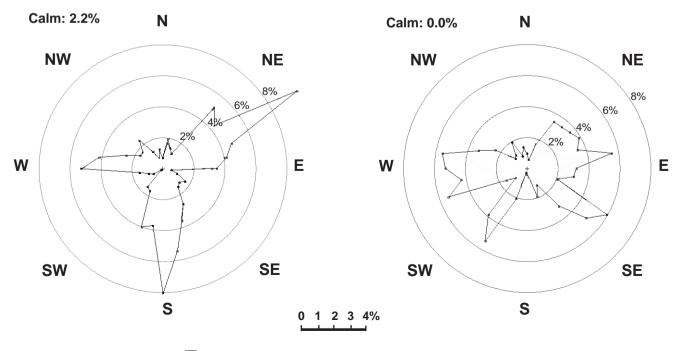
WIND & ELEMENTS

FI EMENITO

	VVIND (KNOTS)											ELEMENIS					
County / Station	Mean speed			in. mean date/hour		x. Gus speed	st date/time		ys with gale gusts	Hours with gale gusts	Snow	Snow Lying	Hail	Thunder	Fog		
CO. CLARE																	
SHANNON AIRPORT	6.6	280°	25	25/07	290°	36	25/ 611	0	1	1	0	0	0	0	3		
CO. CORK																	
CORK AIRPORT	7.6	210°	23	23/12	210°	37	23/1106	0	1	4	0	0	0	0	15		
CO. DONEGAL																	
MALIN HEAD	11.4	310°	30	25/12	320°	41	25/1123	0	4	12	0	0	0	0	2		
CO. DUBLIN																	
CASEMENT AERODROME	7.1	260°	29	25/11	270°	39	25/1031	0	2	6	0	0	0	1	0		
DUBLIN AIRPORT	8.8	270°	31	25/11	270°	43	25/1030	0	2	5	0	0	0	0	2		
CO. KERRY																	
VALENTIA OBSERVATORY	5.3	200°	25	23/13	180°	44	23/0845	0	1	7	0	0	0	1	3		
CO. KILKENNY																	
KILKENNY	5.4	300°	21	25/10	270°	34	25/0816	0	1	1	n/a	0		- n/a -			
CO. MAYO																	
BELMULLET	8.6	230°	32	23/18	220°	47	23/1630	0	3	18	0	0	0	0	6		
KNOCK AIRPORT	7.8	290°	29	25/08	210°	40	23/1142	0	2	7	0	0	0	0	8		
					280°	40	25/0731										
CO. MONAGHAN																	
CLONES	6.7	290°	25	25/11	300°	36	25/1106	0	2	3	n/a	0		- n/a -			
CO. OFFALY																	
BIRR	5.5	200°	19	23/14	190°	29	23/1133	0	0	0	n/a	0		- n/a -			
CO. WESTMEATH																	
MULLINGAR II	5.5	280°	18	25/11	190°	30	23/1105	0	0	0	n/a	0		- n/a -			
					280°	30	25/1031								ĺ –		
CO. WEXFORD															ĺ		
ROSSLARE	9.3	040°	34	1/14	230°	43	25/0701	1	3	21	0	0	0	1	5		
								1	1		1	1		1	1		

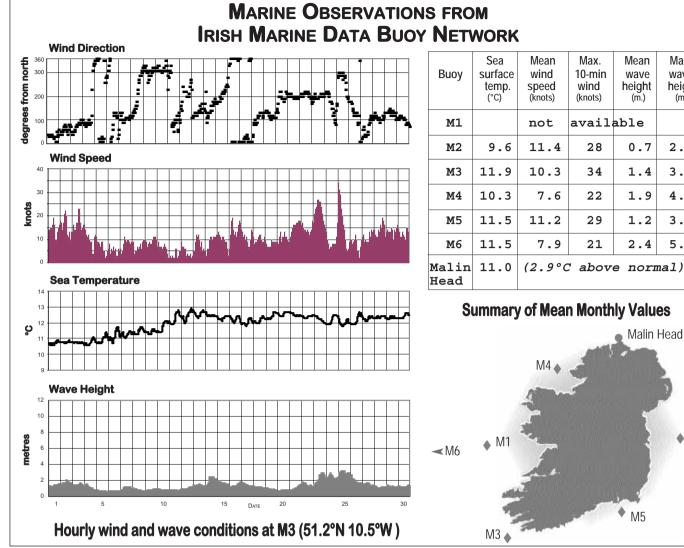
Valentia Observatory

Dublin Airport



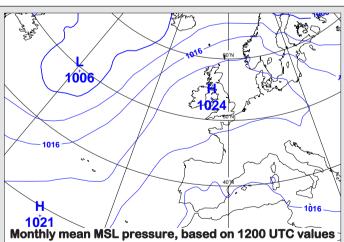
FREQUENCY OF WIND DIRECTION

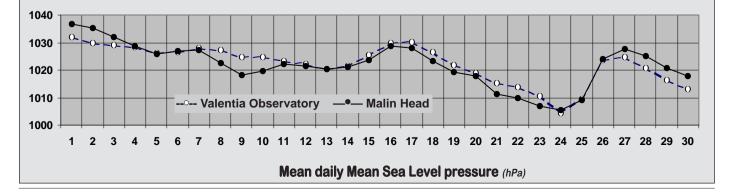
MARINE & PRESSURE



MEAN ATMOSPHERIC PRESSURE

As shown by the chart on the right, mean sea level pressure values for the month were almost uniform over the country, varying between 1022hPa and 1023hPa everywhere; these values are around 7hPa higher than normal for April. Pressure was above normal throughout the month except during the period 20th to 25th. Malin Head measured the highest pressure of the month on the 1st, 1038.0hPa, while the month's lowest value, 997.7hPa, was recorded at Knock Airport on the 25th.





Max.

wave

height

(m.)

2.4

3.3

4.5

3.8

5.6

♦ M2

Mean

wave

height

(m.)

0.7

1.4

1.9

1.2

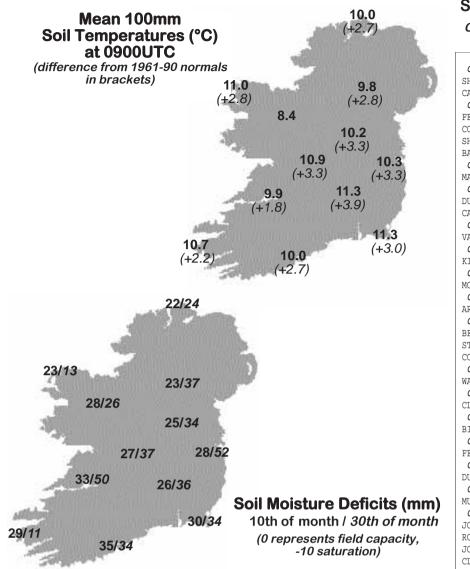
2.4

Malin Head

M5

AGMET / LABORATORY

April 2007



Soil Temperatures at 0900UTC

County/		°C	
Station	100mm	200mm	300mm
<i>CO. CLARE</i> SHANNON AIRPORT	0 0	10.3	10.9
CARRON AIRPORI	9.9 10.3	10.5	10.9
CO. CORK	10.3		10.7
FERMOY (MOORE PARK)	10.3	10.5	10.9
CORK AIRPORT	10.5	10.3	10.9
SHERKIN ISLAND	11.3	10.5	11.9
BALLINCURRIG (PEAFIELD)		10.5	
CO. DONEGAL	10.4	10.5	11.0
MALIN HEAD	10 0	10.7	10.7
CO. DUBLIN	10.0	10.7	10.7
DUBLIN AIRPORT	10 0	10 /	10.8
CASEMENT AERODROME	10.0	10.4 10.7	10.8
CO. KERRY	10.5	10.7	10.0
VALENTIA OBSERVATORY	10 7	11.6	12 4
CO. KILKENNY	10.7	11.0	12.1
KILKENNY	11 3	11.7	12 1
CO. LIMERICK	11.5	±±•/	12.1
MOUNT RUSSELL	99	10.7	
CO. LOUTH	5.5	10.7	
ARDEE (BOHARNAMOE)	9.3	9.5	9.9
CO. MAYO			
BELMULLET	11.0	11.9	12.9
STRAIDE	9.6		
CONNACHT AIRPORT	8.4	9.2	9.9
CO. MEATH			
WARRENSTOWN	10.0	10.5	10.7
CO. MONAGHAN			
CLONES	9.8	10.2	10.6
CO. OFFALY			
BIRR	10.9	11.5	11.6
CO. TIPPERARY			
FETHARD (PARSONSHILL)	9.5	10.6	
CO. WATERFORD			
DUNGARVAN (CARRIGLEA)	10.9	11.5	
CO. WESTMEATH			
MULLINGAR II	10.2	10.4	11.1
CO. WEXFORD			
JOHNSTOWN CASTLE		11.0	11.5
ROSSLARE	11.3	11.5	11.6
JOHN F. KENNEDY PARK	11.3	11.3	11.9
CLONROCHE (KNOXTOWN)	9.6	9.9	10.2

Chemical Analysis of Precipitation and Air Samples at Valentia Observatory PRECIPITATION electrical conductivity (µS/cm) 250 8 200 7 pH and electrical conductivity are 150 6 not available on dry days (<0.2mm) 100 5 50 4 ╷┚╽╷┻╷┻╷┻╷ 3 0 data shown here are interim values and are subject to change NO₂-N AIR 3.5 0-0-0 3 °O' O SO₂-S 2.5 0 ----o 0 2 0 1.5 SO₄-S 0 ----1 0.5 (µgs/m³)

0

1

3

5

7

9

11

13

15

17

19 21

23

25

27

29

Acid rain occurs when pollutants combine with moisture in the air to form sulphuric or nitric acid. pH is the simplest way of measuring the acidity of precipitation. Usually pH of 7.00 is considered neutral but this is not the case in rainfall samples. Pure water in the atmosphere has an equilibrium pH value of 5.65 at 20°C owing to carbon dioxide in the air dissolving to form carbonic acid. Any value below pH 5.65 is considered acid while anv value above is considered alkaline.

рН

Sulphur dioxide and sulphate in air contribute to the formation of sulphuric acid; nitrate in air contributes to the formation of nitric acid.

Conductivity measures the total ion activity in the rainfall, i.e. the higher the conductivity the greater the number of ions present.

April 2007

AGMET

10-day values for Agrometeorolo		R	AINI	FALL			Temperature	SUNSHINE
Stations	period	amount	% of average	rain days wet days	mean max.	mean min. mean daily	diff. from average lowest min. date days with air frost degree days > 4.4 °C degree days > 10.0 °C degree days > 10.0 °C date date date date date date date das with ground frost mean 10cm at 0900h mean 30cm at 0900h	total no. of hours % of average
<i>Co. Cavan</i> Cavan (Loreto)	1-10 11-20 21-end month	0.2 0.3 14.6 15.1	- - -	0 0 1 0 4 3 5 3	15.0 16.7 15.7 15.8	1.5 8.3 4.1 10.4 8.0 11.9 4.5 10.2	2.0 4 4 47 14 -3.1 4 7 - - 0.3 18 1 63 22 -1.3 18 1 - - 0.2 26 1 76 25 -0.4 26 1 - 2.0 4 6 186 60 -3.1 4 9 -	77.2 - 55.5 - 54.3 - 187.0 -
<i>Co. Cork</i> Fermoy	1-10 11-20 21-end month	0.0 0.0 17.2 17.2	- - 29	0 0 0 0 6 6 6 6	15.7 17.1 16.4 16.4	3.6 9.7 5.7 11.4 9.2 12.8 6.1 11.3	- 0.2 4 0 56 16 -5.3 4 8 7.6 8.9 - 0.5 19 0 72 26 -4.5 19 6 10.8 11.3 - 0.8 26 0 85 32 -2.3 26 1 12.6 12.4 3.3 0.2 4 0 213 74 -5.3 4 15 10.3 10.9	86.8 - 85.1 - 49.1 - 221.0 155
<i>Co. Donegal</i> Glenties	1-10 11-20 21-end month	1.7 2.1 34.6 38.4	- - - 48	2 1 5 0 5 5 12 6	14.2 15.7 17.2 15.7	2.1 8.2 5.1 10.4 7.8 12.5 5.0 10.4	1.4 4 5 46 12 -3.2 3 8 - 1.4 18 0 62 20 -1.8 18 4 - 0.4 26 0 83 33 -0.9 26 2 2.9 -1.4 4 5 191 65 -3.2 3 14 -	
<i>Co. Kerry</i> Ardfert	1-10 11-20 21-end month	0.0 0.8 26.8 27.6	- - -	0 0 1 0 5 4 6 4	16.2 18.8 18.7 17.9	2.4 9.3 5.6 12.2 8.9 13.8 5.6 11.8	0.8 4 1 55 16 -7.9 4 9 - 2.6 18 0 78 33 -2.9 18 6 - 2.7 26 0 94 42 -3.5 26 2 3.4 -0.8 4 1 228 91 -7.9 4 17 -	84.5 - 91.5 - 57.4 - 233.4 -
Co. Louth Ardee	1-10 11-20 21-end month	0.0 0.0 11.1 11.1	- - 20	0 0 0 0 5 2 5 2	14.8 16.4 15.9 15.7	2.9 8.9 4.9 10.7 8.8 12.4 5.5 10.6	0.9 4 1 50 13 -3.5 5 6 7.0 7.9 - 1.0 18 0 65 21 -1.6 18 3 9.7 10.1 - 2.2 26 0 80 28 -2.7 26 1 11.3 11.5 3.1 -0.9 4 1 194 63 -3.5 5 10 9.3 9.9	
<i>Co. Waterford</i> Dungarvan	1-10 11-20 21-end month	0.0 0.0 42.0 42.0	- - -	0 0 0 0 6 6 6 6	16.0 17.0 16.1 16.4	3.9 10.0 6.0 11.5 9.8 13.0 6.6 11.5	- 1.1 4 0 59 18 -1.0 4 1 - 9.1 - 1.6 13 0 73 26 0.5 19 0 - 12.2 - 3.1 26 0 86 33 2.2 26 0 - 13.3 3.0 1.1 4 0 218 77 -1.0 4 1 - 11.5	93.7 - 87.3 - 47.0 - 228.0 150
Co. Wexford Johnstown Castl	1-10 e 11-20 21-end month	0.0 0.4 37.4 37.8	- - 59	0 0 1 0 5 5 6 5	13.2 14.9 14.4 14.1	5.6 9.4 7.2 11.1 9.9 12.2 7.6 10.9	- 2.7 4 0 50 10 -0.4 5 2 9.1 9.4 - 5.2 17 0 66 18 -0.2 20 1 12.2 12.4 - 6.3 26 0 77 23 3.9 26 0 12.7 12.8 3.0 2.7 4 0 194 51 -0.4 5 3 11.3 11.5	

MEASURED POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE

County/ Station	Period	P.E. (mm) Amount		Soil Moisture (Accum'ltd Deficit	
Station	Fellou	Amount	Dencit	Accumita Denci	Surpius
Co. Kerry					
-	1-10	23.9	24	30	-
Valentia Obs.	11-20	22.3	22	52	-
	21-end	21.6	-	16	36
	month	67.8			
Co. Wexford					
	1-10	28.6	29	49	-
Johnstown Castle	11-20	31.7	25	74	-
	21-end	19.6	-	47	27
	month	79.9			

MONTHLY EVAPORATION (MM) FROM CLASS A PAN

County	Station	Monthly Rainfall <i>(mm)</i>	Monthly Evaporation <i>(mm)</i>	
Clare	Kilmaley	26.7	68.4	
Cork	Fermoy (Moorepark)	17.2	85.2	
Kerry	Valentia Observatory	50.9	68.5	
Kildare	Poulaphuca	11.7	67.4	
Mayo	Newport (Furnace)	55.7	67.1	
Offaly	Derrygreenagh	17.4	67.6	
Waterford	Dungarvan (Carriglea) 42.0	84.0	
Wexford	Johnstown Castle	37.8	96.3	

P .	E. (Penm	an)			
County/ Station	total for month(mm)				
Co.Clare Shannon Airport Co.Cork	73	GLC		olar Rai I/sq. m.)	DIATION
Cork Airport Cork Donegal	70	1(1-10)-day tota 11-20	s 21-end	Total for month
Malin Head Co.Dublin	71	139.98	142.06	147.26	429.30
Dublin Airport Casement Aerodrom	68 e 64	163.34	176.68	155.12	492.14
Co Kerry Valentia Obs.	68	170.73	176.55	139.16	486.44
Co.Kilkenny Kilkenny	70	169.08	194.45	142.75	506.28
Co.Mayo Belmullet					
Knock Airport	58 59	158.91	149.76	144.11	452.78
<i>Co.Monaghan</i> Clones <i>Co.Offaly</i>	62	147.37	144.96	145.98	438.31
Birr Co.Westmeath	63	160.22	168.42	144.95	473.59
Mullingar Co.Wexford	63	See	BACK <u>PA</u>	ge of Jan	IUARY
Rosslare	70			tes on thi	

DIARY

Sunday 1st: An anticyclone of central pressure 1038hPa was almost stationary north of Ireland. Some mist in places overnight, with ground frost also. Dry throughout the day with long sunny spells everywhere. Cool in a northeasterly breeze. The evening and night were clear, with winds becoming light away from the southeast coast.

Rainfall: nil

Temperature: max. 9°C to 15°C, min. 2°C to 7°C, ground temperatures down to -4°C at Clones

Sunshine: 9 to 12 hours, sunniest at Clones, 9 hours at Casement Aerodrome

Monday 2nd: Clear spells overnight, with ground frost in many areas. Dry throughout the day with sunshine and northeasterly winds, which were strongest along eastern and southeastern coasts. Cool near the east and southeast coast, but temperatures well above normal in other areas. Clear and dry during the evening.

Rainfall: nil

Temperature: max. 10°C to 17°C, min. 2°C to 8°C, ground temperatures down to -3°C at Mullingar

Sunshine: 9 to 11 hours, sunniest at Cork Airport, 9 hours at Casement Aerodrome

Tuesday 3rd: Cool overnight with frost in a few inland areas. Spells of sunshine everywhere, particularly in the north and west. Dry countrywide throughout the day. Frost returned during the evening. Winds were east or northeasterly, light inland and in the west, moderate near north and east coasts but strong at times in the southeast. Cool along coasts with onshore winds. **Rainfall:** nil

Temperature: max. 10°C to 14°C, min. 3°C to 8°C, ground temperatures below zero at all inland stations, down to -6°C at Birr **Sunshine:** 4 to 10 hours, sunniest at Clones, 4 hours at Casement Aerodrome

Wednesday 4th: Cold during the night with sharp to severe frost in many areas. Dry throughout with long sunny periods and temperatures up to or above normal. The exception was the extreme north and southeast coasts, where onshore winds kept temperatures down and more cloud persisted. Sharp to severe frost in many areas after dark. Winds were generally light and variable.

Rainfall: nil

Temperature: max. 10°C to 17°C, min. -2°C to 7°C, ground temperatures below zero at all inland stations, down to -8°C at Birr **Sunshine:** 7 to 12 hours, sunniest at Knock Airport, 7 hours at Malin Head

Thursday 5th: Clear skies overnight brought a sharp drop in temperatures, with sharp to severe frost in many areas. Fog was dense in places also, but cleared during the morning to give a fine, dry day in all areas. Long periods of sunshine, a little cloudier in northern areas. Temperatures rose above normal during the day, but it was cooler on coasts, mainly in the north. Light north to northwesterly winds.

Rainfall: nil

Temperature: max. 12°C to 18°C, min. -1°C to 7°C, ground temperatures below zero at most inland stations, down to -8°C at Birr **Sunshine:** 7 to 12 hours, sunniest at Kilkenny, 7 hours at Malin Head

Friday 6th: Frost and some dense fog in places overnight cleared early in the morning to give a dry, sunny day everywhere. Coolest along northern, eastern and southeastern coasts. The evening and night were dry and clear with ground frost setting in again after dark. Light winds throughout.

Rainfall: nil to trace

Temperature: max. 11°C to 18°C, min. 1°C to 7°C, ground temperatures down to - 5°C at Clones

Sunshine: 6 to 12 hours, sunniest at Rosslare, 6 hours at Malin Head

Saturday 7th: Dry during the night with sharp to severe frost in some inland areas. Fog in areas also, dense in places, but clearing quickly during the morning. Dry during the day with long sunny periods and becoming warm in most places also. Slight to sharp frost returning during the late evening. Light variable winds.

Rainfall: nil

Temperature: max. 11°C to 18°C, min. 1°C to 8°C, ground temperatures down to - 5°C at Casement Aerodrome **Suppline:** 5 to 12 hours, supplied at Posslare, 5 hours at Malin Head

Sunshine: 5 to 12 hours, sunniest at Rosslare, 5 hours at Malin Head

Sunday 8th: Frost and fog overnight cleared early in the morning. Dry and sunny in most areas during the day. More overcast conditions in the north, with

the extreme north receiving some light rain or drizzle. Clear in the evening. Winds were westerly, light generally, but a little stronger in the north. **Rainfall:** nil generally, <1mm at Malin Head

Temperature: max. 13°C to 18°C, min. 2°C to 7°C, ground temperatures down to -4°C at Kilkenny

Sunshine: 2 to 12 hours, sunniest at Kilkenny, 2 hours at Malin Head

Monday 9th: Dry apart from some light drizzle at times in Ulster. Sunny spells in the southeast and south, but duller further north. Winds were between southwest and westerly in direction, mainly light but moderate in the north. *Rainfall: nil generally, 1mm at Malin Head and Clones*

Temperature: max. 12°C to 15°C, min. 3°C to 11°C, ground temperatures down to -4°C at Kilkenny **Sunshine:** trace to 7 hours, sunniest at Cork Airport, trace at Malin Head

Tuesday 10th: Cloudy generally at first, with occasional rain or drizzle in the north. Clear skies over parts of Connacht during the night, but during the day there was a covering of cloud generally with only short sunny spells. Skies cleared after dark in many places, but cloudy conditions persisted in the west and northwest, with outbreaks of rain and drizzle. Winds were light generally, but fresher in the north.

Rainfall: nil to <1mm, heaviest at Malin Head Temperature: max. 12°C to 17°C, min. 7°C to 11°C, no ground frost Sunshine: <1 to 5 hours, sunniest at Malin Head, <1 hour at Clones

Wednesday 11th: Cloudy along the east coast overnight, but there were clear skies elsewhere with fog in places and light winds. During the morning, cloud broke in the east and sunny spells developed in all areas, particularly in southern regions. Dry with sunny spells in the afternoon; clear skies with some fog developing after dark. Light variable winds.

Rainfall: nil

Temperature: max.14°C to 18°C, min. 5°C to 10°C, ground temperatures down to -3°C at Kilkenny,

Sunshine: <1 to 12 hours, sunniest at Rosslare, <1mm at Malin Head

Thursday 12th Clear spells with mist and fog overnight. The fog and mist lifted during the morning, giving way to a dry, sunny day countrywide with light winds. Warm during the afternoon, particularly inland. Clear spells again during the evening and night. Light variable winds. *Rainfall: nil*

Temperature: max. 14°C to 19°C, min. 1°C to 8°C, ground temperatures down to -6°C at Kilkenny

Sunshine: 7 to 12 hours, sunniest at Dublin Airport, 7 hours at Shannon Airport

Friday 13th: Clear skies overnight, giving a sharp frost in many inland areas. Mist cleared quickly and long sunny spells again developed during the day. Dry throughout. Warm with daytime temperatures well above normal, but falling quickly during the night hours. Light winds generally. *Rainfall: nil*

Temperature: max.12°C to 19°C, min. 3°C to 9°C, ground temperatures down to -3°C at Kilkenny

Sunshine: 8 to 12 hours, sunniest at Belmullet, 8 hours at Clones

Saturday 14th: Another dry day in all areas. Temperatures above normal in most parts. Long sunny spells in all but parts of the south, which remained generally overcast throughout. No overnight ground frost. Winds were generally light, variable in direction.

Rainfall: nil

Temperature: max. 14°C to 21°C, min. 5°C to 10°C, no ground frost Sunshine: <1 to 11 hours, sunniest at Dublin Airport, <1 hour at Cork Airport

Sunday 15th: The day began dry with spells of hazy sunshine. Cooler weather with outbreaks of rain and drizzle moved into western areas during the morning and moved slowly southeastwards during the day. Rainfall amounts were generally small. Leinster and east Munster remained dry and warm with sunny spells. Mild overnight with patchy rain and drizzle in places. Southwesterly winds were mostly light but were moderate and gusty on northwestern coasts at times; winds turned more westerly for a time during the day, but fell light and variable during the evening.

Rainfall: nil to 1mm, heaviest at Knock Airport

Temperature: max. 14°C to 20°C, min. 5°C to 12°C, no ground frost **Sunshine:** trace to 7 hours, sunniest at Cork Airport, trace at Knock Airport

April 2007

DIARY

Monday 16th: Outbreaks of rain and drizzle overnight, mainly in the east. Mild and humid in the southern half of the country, but colder elsewhere with ground frost in places. Rain cleared during the morning and it was a dry day generally with sunny spells. Cooler than of late with afternoon temperatures just up to normal. Remaining dry with clear spells after dark. Light northwesterly winds were moderate at times on northern coasts.

Rainfall: nil generally, <1mm at Casement Aerodrome and Dublin Airport **Temperature:** max. 13°C to 16°C, min. 3°C to 9°C, ground temperatures down to -2°C at Clones

Sunshine: 5 to 11 hours, sunniest at Valentia, 5 hours at Rosslare

Tuesday 17th: A few light showers in Connacht and Ulster during the late morning and early afternoon, but otherwise dry. Cool overnight with slight ground frost inland. Long sunny spells in the south of the country, but cloudier further north. Winds were mostly from a northwesterly direction, generally light but moderate at times in the extreme north.

Rainfall: nil generally, <1mm at Malin Head and Belmullet

Temperature: max. 11°C to 16°C, min. 2°C to 8°C, ground temperatures down to -3°C at Birr

Sunshine: 4 to 11 hours, sunniest at Valentia, 4 hours at Belmullet

Wednesday 18th: Dry and clear overnight with frost and fog in places. Fog lifted during the morning to give a dry and sunny day over the country, with temperatures rising above normal inland, but cooler near coasts. Ground frost returning after dark. Light variable winds.

Rainfall: nil

Temperature: max. 13°C to 17°C, min -1°C to 8°C, ground temperatures below zero at all inland stations, down to -6°C at Birr

Sunshine: 9 to 13 hours, sunniest at Cork Airport, 9 hours at Belmullet

Thursday 19th: Cool overnight with ground frost inland. Fog became widespread later in the night, but cleared during the morning. It was another dry day generally, but rain and drizzle became persistent in north Ulster for a while during the morning. Sunny all day in Munster and Leinster, cloudier further north and west. Winds were light and variable in direction.

Rainfall: nil to trace generally, 4mm at Malin Head

Temperature: max. 12°C to 17°C, min. 2°C to 8°C, ground temperatures down to -4°C at Kilkenny

Sunshine: 1 to 13 hours, sunniest at Rosslare, 1 hour at Clones

Friday 20th: Outbreaks of patchy drizzle in the southwest during the morning and in the west in the afternoon and evening, dry elsewhere. Sunny in the southeast, cloudier further west. Winds were initially variable, later becoming south or southeasterly, mostly light but moderate at times in the west. **Rainfall:** *nil* to *trace*

Temperature: max. 14°C to 18°C, min. 2°C to 8°C, ground temperatures down to -3°C at Kilkenny

Sunshine: 2 to 12 hours, sunniest at Rosslare, 2 hours at Valentia

Saturday 21st: The morning was largely dry with hazy sunshine, except in the northwest where there was rain. Becoming overcast during the afternoon, but again most areas were dry apart from the northwest. Patchy rain and drizzle developed later in most areas, with some heavier falls in the northwest. Winds were light to moderate, southwesterly.

Rainfall: nil to 5mm generally, 20mm at Belmullet

Temperature: max. 13°C to 18°C, min. 8°C to 11°C, no ground frost **Sunshine:** nil to 4 hours, sunniest at Rosslare

Sunday 22nd: Mild and humid overnight with outbreaks of mostly light rain and drizzle. The rain and drizzle became largely confined to western areas during the morning and, apart from some well-scattered showers, most areas had a dry, warm afternoon with sunny spells. Moderate southwesterly winds were fresh and gusty at times on western coasts.

Rainfall: nil to 5mm, heaviest at Valentia, nil at Belmullet

Temperature: max. 13°C to 20°C, min. 10°C to 13°C, no ground frost **Sunshine:** nil to 4 hours, sunniest at Casement Aerodrome

Monday 23rd: Rain or drizzle everywhere during the night, heaviest in the southwest. This rain, heavy at times, continued into the afternoon in most places. Most of the rain cleared away in the early evening, but outbreaks of patchy rain remained in western parts throughout. Some clear spells after dark in eastern areas. No frost. Winds were strong and gusty, southerly with gale to strong gale gusts in most coastal areas of the west, north and east.

Rainfall: <1 to 17mm, heaviest at Valentia, <1mm at Dublin Airport **Temperature:** max. 13°C to 17°C, min. 11°C to 13°C, no ground frost **Sunshine:** nil to trace generally, <1 hour at Malin Head

Tuesday 24th: Outbreaks of rain or drizzle in many areas during the night. Mainly dry and warm during the day, but with occasional light rain or drizzle. Visibility very poor in some southern areas. More significant rain reached the south coast during the evening. Fog in many southern areas. Some sunny periods also, mainly in the north. Winds were from a southerly direction, light to moderate.

Rainfall: trace to 12mm, heaviest at Mullingar, trace at Casement Aerodrome Temperature: max. 13°C to 19°C, min. 9°C to 12°C, no ground frost Sunshine: nil to 9 hours, sunniest at Belmullet

Wednesday 25th: Early rain and drizzle was heavy at times on Atlantic coasts. The rain became more showery during the morning and it was a cool, breezy day with scattered showers and sunny spells. The showers gradually died out in the afternoon. Becoming cold with ground frost developing in places inland after dark. Cyclonic variable winds were moderate to fresh and gusty overnight, veering west to northwesterly, easing by late afternoon or evening.

Rainfall: nil to 24mm, heaviest at Belmullet, nil at Rosslare

Temperature: max. 11°C to 16°C, min. 3°C to 10°C, ground temperatures down to -4°C at Birr

Sunshine: 4 to 11 hours, sunniest at Kilkenny, 4 hours at Knock Airport

Thursday 26th: Cold and dry overnight with widespread frost, some fog also. The frost and fog cleared quickly after sunrise. Dry countrywide for the rest of the day. Most places had long spells of unbroken sunshine, the exception was the southeast where cloud increased during the late afternoon. Warm. Winds were light throughout and variable in direction.

Rainfall: nil

Temperature: max. 12 °C to 17 °C, min. 0 °C to 9 °C, ground temperatures down to -7 °C at Birr

Sunshine: 9 to 14 hours, sunniest at Belmullet, 9 hours at Rosslare

Friday 27th: Some ground frost overnight. Long hours of unbroken sunshine during the day, particularly in the west. Warm generally, apart from southern and eastern coasts where temperatures were below normal due to the prevailing easterly wind. Winds were generally light throughout, but fresher in the east. **Rainfall:** nil

Temperature: max. 12°C to 20°C, min. 5°C to 10°C, ground temperatures down to -2°C at Birr

Sunshine: 8 to 14 hours, sunniest at Belmullet, 8 hours at Rosslare

Saturday 28th: Clear spells overnight with mist in places but no frost. Dry throughout the day with long sunny spells and warm except near eastern coasts affected by onshore breezes. Clear spells continued after dark. Winds were generally light and easterly or variable in direction.

Rainfall: nil

Temperature: max. 14°C to 22°C, min. 7°C to 11°C, no ground frost **Sunshine:** 4 to 10 hours, sunniest at Dublin Airport, 4 hours at Malin Head

Sunday 29th: Showery rain moved into the south and southeast in the morning; while the rain was generally light there were some heavy thundery bursts. This showery rain moved into midland and western areas during the afternoon, continuing to give localised heavy or thundery episodes. The shower activity died out for a while in the late afternoon and early evening but during the late evening a further band of showers spread into the southwest. Winds were light to moderate, easterly for much of the day, later becoming light.

Rainfall: nil to 3mm, heaviest at Cork Airport

Temperature: max. 13°C to 18°C, min. 7°C to 12°C, no ground frost Sunshine: nil to 10 hours, sunniest at Malin Head, nil at Cork Airport

Monday 30th: Towards dawn a showery trough moved into south Leinster and spread into Munster. Thunderstorms were reported, with some heavy falls locally. In contrast, the remainder of the country had a dry, warm and sunny day. Clear spells after dark everywhere except in the southeast. Generally light or calm winds, but eastern areas continued to be affected by light to moderate easterly winds.

Rainfall: nil to 5mm, heaviest at Kilkenny

Temperature: max. 13°C to 21°C, min. 7°C to 12°C, no ground frost Sunshine: nil to 13 hours, sunniest at Malin Head, nil at Cork Airport

RAINFALI

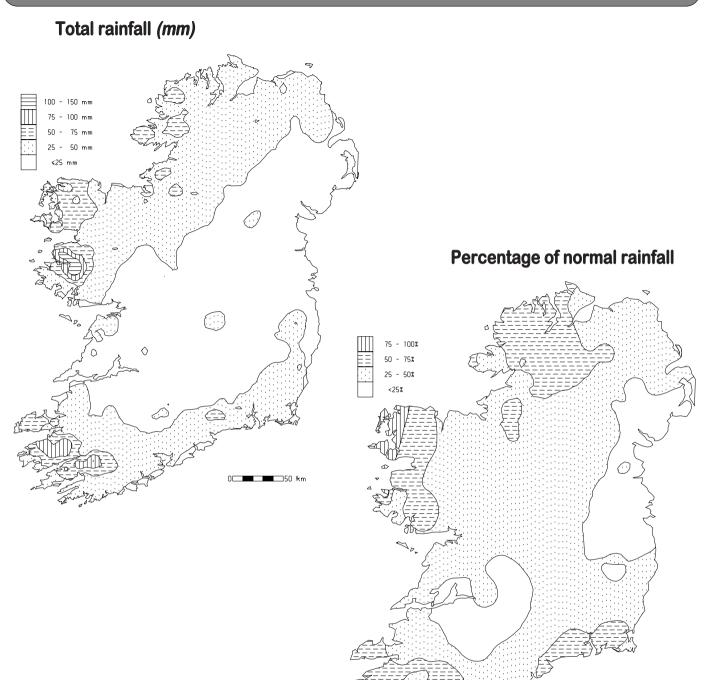
Drier than normal everywhere, very dry in many places

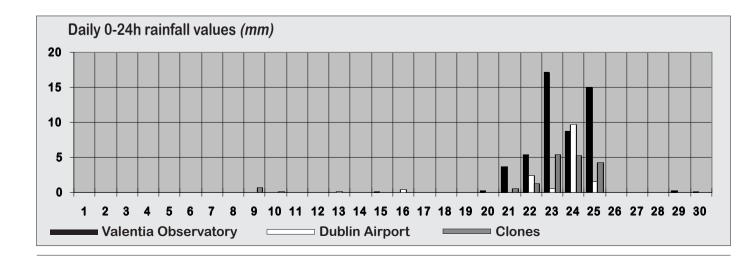
Rainfall totals for April were below normal everywhere and were well below normal generally, with less than half of the normal April rainfall recorded over most of the country. It was the driest April on record at a number of stations in the east and southwest, while at many other stations it was the driest for between 10 and 27 years. Totals ranged from only 3mm at Dublin (Merrion Square), its driest April since records began there in 1948, to 117mm at Maam Valley, Co. Galway. Percentage of normal values were between 6% at Merrion Square and 96% at **Belmullet.**

Almost all of the month was dry, with significant falls confined to the period 21st to 25th. During this spell, however, some heavy falls were recorded at stations in the west and south. The highest daily fall of the month, 47.7mm, was recorded at Maam Valley on the 21st, while Belmullet's fall of 24mm on the 24th was its highest daily fall for April since the station opened in 1956. There was a total of only between 2 and 7 wetdays (days with 1mm or more rainfall) during the month, compared with the average range for April of 9 to 14 wetdays.

RAINFALL					Αμ	oril 2007
Country	Total	% of			Numbe	er of
County/		1961-90	Most	in	Raindays	
Station	(mm)	average	a day /	date	(>0.2mm)	(>1mm)
CO. CAVAN						
CAVAN (LORETO COLLEGE)	15.1		10.5	24	5	3
CO. CLARE SHANNON AIRPORT	11.7	21	5.2	24	6	3
CARRON AIRPORT	31.2	36	12.4	24	6	3
CO. CORK	51.2	50	12.1	23		1
FERMOY (MOORE PARK)	17.2	29	5.2	24	6	6
CORK AIRPORT	27.1	39	10.7	23	8	5
SHERKIN ISLAND	30.6	47	11.4	22	5	5
BALLINCURRIG (PEAFIELD)	32.6		11.5	23	7	6
CO. DONEGAL						
MALIN HEAD	32.6	56	16.4		11	6
BALLYSHANNON (CATHLEEN'S FALL) GLENTIES	28.9 38.4	51 48	12.0 11.8	24 25	9 12	6 6
CO. DUBLIN	50.4	70	11.0	20	12	0
DUBLIN (PHOENIX PARK)	8.0	15	4.4	23	5	3
DUBLIN AIRPORT	14.7		11.3	24	5	2
CASEMENT AERODROME	5.4	11	2.6	22	5	2
DUBLIN (MERRION SQUARE)	3.1	6	1.1	23	4	1
CO. GALWAY						
GALWAY (UNIV.COLL.)	24.8	37	9.1	23	5	4
MAAM VALLEY	117.2		47.7	21	10	7
CONNEMARA NATIONAL PARK	76.2	92	33.4	24	8	7
BALLYGAR CO. KERRY	24.1	40	10.4	24	6	4
VALENTIA OBSERVATORY	50.9	66	23.7	24	7	4
ARDFERT (LISCAHANE)	27.6	00	17.7	24	6	4
CO. KILKENNY						-
KILKENNY	22.6	43	11.1	24	6	5
CO. LIMERICK						
MOUNT RUSSELL	16.8		7.6	24	6	5
CO. LOUTH						
ARDEE (BOHARNAMOE)	11.1	20	8.0	24	5	2
CO. MAYO		96	22 7	24	9	2
BELMULLET STRAIDE	54.7 30.6		23.7 18.0		8	3 4
CONNACHT AIRPORT	32.3	10	11.5		10	5
CO. MEATH	0210					5
WARRENSTOWN	10.4	18	4.0	24	5	3
CO. MONAGHAN						
CLONES	17.9	32	8.4	24	6	4
CO. OFFALY						
BIRR	21.8		10.3	24	6	3
DERRYGREENAGH	17.4	31	6.0	24	6	4
CO. SLIGO ARDTARMON	26.5		16.9	24	10	4
CO. TIPPERARY	20.5		10.9	24	10	т
FETHARD (PARSONSHILL)	23.7		12.4	24	6	6
CO. WATERFORD						-
WATERFORD (TYCOR)	36.4	60	15.2	24	5	5
DUNGARVAN (CARRIGLEA)	42.0		15.5	24	6	6
CO. WESTMEATH						
MULLINGAR II	22.3	38	9.7	24	6	4
CO. WEXFORD				0.0	-	_
JOHNSTOWN CASTLE ROSSLARE	37.8		14.4		6 5	5 5
JOHN F. KENNEDY PARK	32.6		10.2		5	5
CLONROCHE (KNOXTOWN)	39.5	71	14.5		7	5
				-		-

RAINFALL





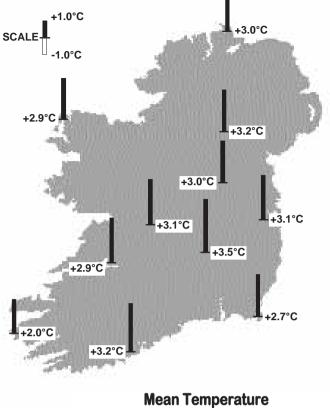
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TEMPERATURE

Warmest April on record almost everywhere

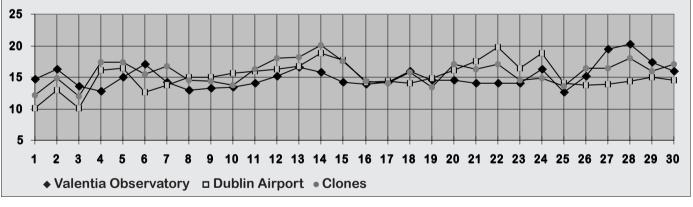
Mean air temperatures for the month of between two and four degrees above normal were the highest on record for April at almost all stations. They ranged from 10.2°C at both Knock Airport and Cavan (Loreto College) to 12.3°C at Waterford (Tycor). Among the longterm records broken were at Malin Head, Birr and Dublin (Phoenix Park), each of which have more than a century of temperature readings, but Valentia Observatory's mean of 11.0°C was not as high as the mean of 11.6°C measured there in 1893.

Daytime temperatures were above normal throughout the month, particularly during the period 13th to 15th and from the 21st onwards. The month's highest temperature, 22.6°C, was measured at Ardfert (Liscahane), Co. Kerry, on the 28th. Despite the high temperatures overall, minimum temperatures dipped close to freezing on several nights, particularly during the first week; there was a total of between 10 and 17 ground frosts during the month at inland stations, around a third more than normal for April. The lowest air temperatures of the **Daily 0-24h maximum temperatures (°C)**

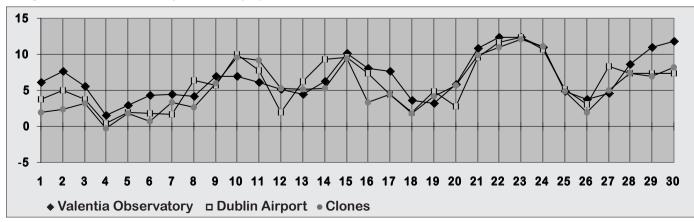


(difference from 1961-90 normals)

month, -2.0°C, was measured at Cavan (Loreto College) on the 4th, while the lowest grass minimum temperature, -8.4°C, was recorded at Birr on the 5th.







TEMPERATURE

						°C						
County/			Mean/ d	oviation		C						
-	Mean	Mean	from 19		Highe	st	Lowe	st	Lowes	st	Days	s with
Station	max.	min.	avera	ge	max./d	ate	min./d	ate	grass mi	n./date	air frost	ground frost
CO. CAVAN												
CAVAN (LORETO COLLEGE)	15.8	4.5	10.2		19.9	14	-2.0	4	-3.1	4	6	9
CO. CLARE												
SHANNON AIRPORT	16.5	7.0	11.8	2.9	22.2	28	0.9	4	-3.4	4	0	10
CARRON	15.3	5.7	10.5	2.8	20.2	28	0.1	4	-5.1	26	0	16
CO. CORK												
FERMOY (MOORE PARK)	16.4 14.9	6.1	11.3	3.3	19.3 17.6	15 28 5	0.2	4 4	-5.3	4	0	15 6
CORK AIRPORT SHERKIN ISLAND	14.9	7.3 7.3	11.1	2.4	17.6	2	2.0 2.5	4 4	-1.5	4	0	6 1
BALLINCURRIG (PEAFIELD)	16.3	5.8	11.1	2.1	19.8		0.5	4	-2.5	4	0	8
CO. DONEGAL								-		-	-	-
MALIN HEAD	13.6	7.9	10.8	3.0	18.2	14	3.1	1	-1.4	1	0	1
BALLYSHANNON (CATHLEEN'S FALL)	15.2	6.8	11.0	3.1	20.2	14	0.6	4			0	
GLENTIES	15.7	5.0	10.4	2.9	20.6	14	-1.4	4	-3.2	23	5	14
CO. DUBLIN												
DUBLIN (PHOENIX PARK)	16.0	6.6	11.3	3.4	20.8	22	0.2	4	-3.5	4	0	9
DUBLIN AIRPORT	15.2	6.4	10.8		19.7	22	0.4	4	-5.0	4	0	13
CASEMENT AERODROME	15.8	5.7	10.8	3.1	19.7	14	-1.7	4	-4.8	7	2 0	12
DUBLIN (MERRION SQUARE) CO. GALWAY	15.1	9.2	12.2	3.3	19.9	22	4.1	4			0	
GALWAY (UNIV.COLL.)	16.4	5.6	11.0	2.3	21.8	28	0.3	4	-4.5	4	0	15
MAAM VALLEY	16.1	6.1	11.1	2.5	20.7	28	1.2	4	-2.3	-	0	7
CONNEMARA NATIONAL PARK	15.4	7.3	11.4		20.5		2.5	4	2.0	20	0	
BALLYGAR	16.7	5.2	11.0		20.3		-0.8	4	-2.1	26	2	7
CO. KERRY												
VALENTIA OBSERVATORY	15.0	6.9	11.0	2.0	20.2	28	1.5	4	-4.6	4	0	12
ARDFERT (LISCAHANE)	17.9	5.6	11.8	3.4	22.6	28	-0.8	4	-7.9	4	1	17
CO. KILKENNY												
KILKENNY	17.3	5.9	11.6	3.5	21.3	14	0.4	4	-6.1	4	0	15
CO. LIMERICK	1.6 1		11 4		01 6			4	4.0		0	0
MOUNT RUSSELL CO. LOUTH	16.1	6.7	11.4		21.6	28	1.1	4	-4.8	4	0	8
ARDEE (BOHARNAMOE)	15.7	5.5	10.6	3 1	20.0	22	-0.9	4	-3.5	5	1	10
CO. MAYO	10.7	5.5	10.0	5.1	20.0	22	0.5	1	5.5	5	-	10
BELMULLET	14.9	7.6	11.3	2.9	21.5	28	1.8	4	-3.1	4	0	3
STRAIDE	16.2	4.8	10.5	2.4	20.0	14 24	-1.8	4	-7.7	4	4	18
CONNACHT AIRPORT	14.4	6.0	10.2		18.1	14	2.7	26	-2.8	4	0	4
CO. MEATH												
WARRENSTOWN	15.6	6.0	10.8	3.1	19.4	14	-0.4	4	-5.2	4	1	10
CO. MONAGHAN	15 0		10.0	2 0	0.0 1	1.4	0.0	4	5.0		1	10
CLONES CO. OFFALY	15.8	5.7	10.8	3.2	20.1	14	-0.3	4	-5.6	4	1	13
BIRR	16.5	5.7	11.1	3.1	21.6	28	-1.3	4	-8.4	5	2	16
DERRYGREENAGH	16.8	5.4	11.1	3.7	21.0		-0.5	5	-4.9		1	14
CO. SLIGO								-		-	_	
ARDTARMON	15.5	7.3	11.4		19.7	14 30	2.9	4	-2.1	4	0	9
CO. TIPPERARY												
FETHARD (PARSONSHILL)	16.3	6.0	11.2		19.7	14 28	1.2	4	-2.3	4	0	8
CO. WATERFORD												
WATERFORD (TYCOR)	16.9	7.7	12.3	3.9	20.4		2.1	4		,	0	
DUNGARVAN (CARRIGLEA)	16.4	6.6	11.5	3.0	19.0	5	1.1	4	-1.0	4	0	1
CO. WESTMEATH MULLINGAR II	15.7	5.5	10.6	3.0	20.6	1/	-1.0	4	-5.3	4	3	10
CO. WEXFORD	12./	5.5	T0.0	J.U	20.6	14	-1.0	4	-5.3	4	3	12
JOHNSTOWN CASTLE	14.1	7.6	10.9	3.0	17.2	14	2.7	4	-0.4	5	0	3
ROSSLARE	13.2	8.9	11.1	2.7	15.8		5.5	9	1.4		0	0
JOHN F. KENNEDY PARK	15.8	7.0	11.4	3.2		14 28	2.8	18	0.2		0	0
CLONROCHE (KNOXTOWN)	15.8	5.8	10.8		20.0	14	0.1	4	-4.0	4	0	13

14

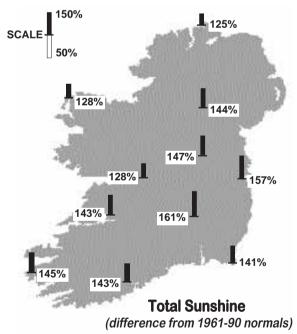
SUNSHINE

County/ Station	Daily mean (hours/day)		% of possible		
CO. CAVAN					
CAVAN (LORETO COLLEGE)	6.19		44	11.3 30	J
CO. CLARE					
SHANNON AIRPORT	7.07	143	51	13.6 26	5
CO. CORK					
FERMOY (MOORE PARK)	7.37	155	53	12.8 18	3
CORK AIRPORT	7.46	143	54	13.4 18	3
SHERKIN ISLAND	7.48	127	54	13.3 26	5
BALLINCURRIG (PEAFIELD)	7.87			12.7 18	3
CO. DONEGAL					
MALIN HEAD	6.34	125	45	13.6 26	5
BALLYSHANNON (CATHLEEN'S FALL)	6.84	144	49	13.5 25	5
CO. DUBLIN					
DUBLIN AIRPORT	7.96	152	57	12.9 18	3
CASEMENT AERODROME	7.67	157	55	12.6 30	C
CO. GALWAY					
GALWAY (UNIV.COLL.)	7.05	142	50	13.4 27	7
CO. KERRY					
VALENTIA OBSERVATORY	7.24	145	52	13.2 26	5
ARDFERT (LISCAHANE)	7.78		56	12.9 26	5
CO. KILKENNY					
KILKENNY	7.81	161	56	12.3 18	3
CO. MAYO					
BELMULLET	6.74	128	48	14.1 26	5
STRAIDE	6.70			13.7 26	5
CONNACHT AIRPORT	6.42			12.4 18	3
CO. MONAGHAN					
CLONES	6.52	144	47	11.8 27	7
CO. OFFALY					
BIRR	7.06	152	50	13.0 27	7
CO. WATERFORD					
DUNGARVAN (CARRIGLEA)	7.60	150	55	11.9 19	Э
CO. WESTMEATH					
MULLINGAR II	7.10	147	51	12.6 18	3
CO. WEXFORD					
ROSSLARE	8.09	141	58	13.2 19	Э
JOHN F. KENNEDY PARK	7.45	151	54	11.9 19	Э
CLONROCHE (KNOXTOWN)	7.94			12.3 18	3

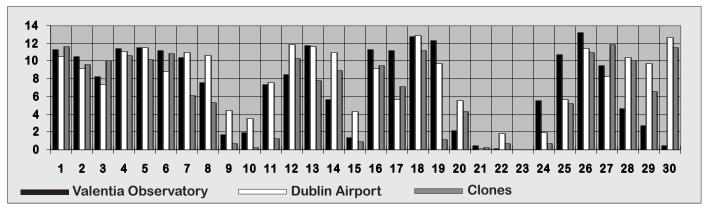
Sunniest April on record in many places

Sunshine totals were well above normal everywhere, with more than 150% of normal sunshine recorded in parts of the midlands and east. Totals ranged from 186 hours at Cavan (Loreto College) to 243 hours at Rosslare, with percentage of normal values between 125% of normal at Malin Head and 161% at Kilkenny. Most stations had their sunniest April on record, while at stations in the north and northwest it was the sunniest April for between 26 and 33 years.

As seen from the chart below, almost all of April was extremely sunny. The highest daily value, 14.1 hours, was recorded at Belmullet on the 26th, its highest daily value for April since it opened in 1956. Global solar radiation totals ranged from 110% of normal at Malin Head to 129% at Dublin Airport.



Daily sunshine values (hours)



WORLD WEATHER

